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Knowing Your Neighbors: An Analysis of the Social Media App "Nextdoor" and Human Interaction

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Knowing Your Neighbors: An Analysis of the Social Media App "Nextdoor" and Human Interaction

by

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Finally, I would like to dedicate this research to urban planners everywhere and anyone who has ever wished they knew their neighbors better. As our world becomes more digital, it is imperative we learn how to engage with each other well in an online space. I hope this research is a reminder of the power we have to build up or tear down communities with our words. May we never forget the implications of our presence – whether online or on the sidewalk.

Knowing Your Neighbors: An Analysis of the Social Media App "Nextdoor" and Human Interaction

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The University of Texas at Austin, 2019

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The advent of technological advancement in the past decade has radically changed the way people communicate with one another, even those who live next door to us. The online application, *Nextdoor,* aims to provide a digital space for neighbors to get to know one another, and my study explores the effects of a geographically-based social network on the St. John's neighborhood in Austin, Texas. Using demographic analysis, the racial and ethnic makeup of the geographic neighborhood was compared to that of the online participants. Posts on the Nextdoor app were analyzed and coded for the themes in their content, and a survey was distributed digitally to the Nextdoor community members to obtain rich qualitative data. My study shows evidence for a racial disparity between the geographic and online community and a fairly monetized community with the most salient theme being *for sale and free.* Ultimately, my study elaborates the great connectedness available to Nextdoor community members as well as the disconnectedness and division that social media can produce.

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CHAPTER 1: INTRODUCTION

The recent era of modernization has been largely characterized by information technology. Many of the changes in society have been tremendously valuable, such as the ability to communicate across the globe via social media, or the ability to use a routing algorithm on a smartphone to call an Uber or Lyft. Yet, not all of the modernization has been good. Numerous studies have shown the negative effects on our relationships due to the inundation of technology; social media networks have even been shown to increase loneliness (Pittman & Reich, 2016). Despite the disheartening side effects of technology, technological advances are not slowing down. “Smart city planning” has become part of the academic vernacular, and as planners, we must adapt to the new ways people are connecting with one another.

One way people are connecting is through a social media app called “Nextdoor,” an app dedicated to geographically-defined communities. Users are allowed on the app after verifying their address, and voila; all of a resident’s neighbors are available through the screen of a mobile device. Several questions arise with the development of Nextdoor: who is using the app, and how does it affect residents’ relations with neighbors? While there are dozens of implications for the utilization of such a communication tool, my study aims to analyze how the app affects human interaction within a neighborhood, and what type of interaction is occurring. My research questions are as follows: **1) To what extent does the social media platform Nextdoor amplify the voices of underrepresented demographics; and 2) To what extent does the app produce positive interaction between neighbors?** In response to these research

questions, I hypothesize that 1) the Nextdoor app provides an opportunity for people whose voices may not be heard at community meetings or included in neighborhood associations, and 2) the Nextdoor app encourages positive human interaction/relationship between neighbors.

Case and Place Significance

My study was conducted on the St. John's neighborhood in Austin, Texas, which encompasses the area bounded by I-35 on the west, Cameron Road on the east, Anderson Lane on the north, and US Highway 290 on the south. Historically, St. John's was a community of sharecroppers established in 1907 by the St. Johns Regular Missionary Baptist Association, a coalition of black churches whose congregants built the St. Johns Industrial Home for Black Orphans (Barnes, 2015). The orphanage closed in 1942, and the City of Austin annexed the St. John's community in 1951. Today, the St. John's community is predominantly Hispanic, and is listed as "most vulnerable" to gentrification, according to a study on gentrifying neighborhoods in Austin (Way, Mueller & Wegmann, 2018). Looking at the communication about the neighborhood and between residents could provide some clues to understand how residents are connecting currently and how socialization in the neighborhood may have changed.

Methods and Data

My methods include three main methods: a demographic analysis of the St. John's neighborhood, coding of conversations or posts on the Nextdoor app, and a survey for online residents to provide rich qualitative data. The data on the Nextdoor

app is accessible to me as a resident, and users can go back at least a year to peruse conversations. The coding of the data will be based on Grounded Theory, an examination of patterns occurring within the data.

CHAPTER 2: LITERATURE REVIEW

There is little research regarding the Nextdoor app and similar apps as of yet. In the existing literature related to social media and planning, scholars share insight on systems thinking, the digitization of community, a history of neighborhood delineation, and the social equity issues that have arisen on online platforms. These existing studies provide evidence for an inherently *connected* community—consistent with systems theory—but also a paradoxically *disconnected* community because of digitization. Furthermore, digitization seemingly amplifies the *divided* aspects of communities due to racial and socioeconomic tensions. Thus, the following literature review summarizes scholarly insight on the inherently connected yet disconnected and divided communities we find ourselves in today.

The Connected Community

SYSTEMS THINKING

Donella Meadows defined systems thinking as "an interconnected set of elements that are coherently organized in a way that achieves something" (Stroh, 2015, p. 16). However, David Stroh (2015) takes the definition a step further and defines system thinking as the "ability to understand these interconnections in a way to achieve a desired purpose" (p. 16). Stroh posits that we are all inherently connected, especially in terms of social change; one person's actions affect the lives of people around them and the greater society as a whole, because every individual has a role in the system.

Stroh extrapolates the role each individual plays in society in his book, *Systems Thinking for Social Change* as follows:

> When people fail to see their responsibility for the present, they (1) tend to assume that their primary work is to change others or the system—not themselves, and (2) promote solutions that optimize their part of the system based on a mistaken belief that the way to optimize the whole system is to optimize each of the parts. By contrast, a systems view encourages them to critically assess their contributions first (Stroh, p. 22).

In some ways, applications like Nextdoor exist because of the implicit systems-thinking belief developers had when building the app: *our actions have an effect on society, and social networks can allow us to have a better effect on society by* knowing *the people who live in our same geographic area*. Due to the advent of social media, we now have access to an online database with a list of all the people in our "system," and it is now easier than ever before to voice an opinion to the greater community.

SOCIAL MEDIA: A VISUALIZATION OF CONNECTED COMMUNITY

The interconnectedness implicit in systems theory manifests itself more tangibly through social networking services. According to one article from the Harvard Kennedy School, Americans have increased their use of social networking by almost ten-fold in the last decade (Royden, 2017). The majority of adults use social media, oftentimes as

a main avenue of communication, and one needs to look no further than their mutual friends list on Facebook to visualize the connectedness Stroh discusses (Bae, Jang, & Kim, 2013).

For example, in Althoff, Jindal, & Leskovec's (2017) study, they analyzed "791 million online and offline actions… [from] 6 million users over the course of 5 years" (para. 1). The researchers used apps and user's posts to measure online activities as well as offline activities, like physical health and activity, for instance. Results showed that users were significantly more involved online *and offline* after joining a social network, and social influence resulted in higher user retention (Althoff, Jindal, & Leskovec). The researchers even concluded that "susceptibility to behavior change" could be accurately predicted to a significant extent (para. 8).

Why can social media be so influential, according to the aforementioned research? Aarts, Gollwitzer, & Hassin (2004) would explain the overwhelming human reaction to social media as "goal contagion," a phenomenon in which people are inspired by other people's lives to set and achieve goals. In six studies, the researchers endeavored to understand their hypothesis that "individuals may automatically adopt and pursue a goal that is implied by another person's behavior" (para. 1). The results of the first three studies showed that people do, in fact, adopt goals based on the simple perception of another person's goal, as long as the goal is strong, appropriate, and persistent (Aarts, Gollwitzer, & Hassin). The final three studies showed that goals were less likely to be adopted when the goal was seen as unattractive, i.e. the "goal pursuit is conducted in an unacceptable manner" (para. 1).

In sum, communities are seemingly more connected than ever before due to the advent of social networks. The connectedness of people through social networks reflects the underlying theories of systems thinking and goal contagion. The role each person plays in society has an effect on the greater "network" of people—whether online or offline. However, the connectedness of social media ironically came about through *disconnection* from other types of interaction; the following section tells the story of disconnection through neighborhood delineation and the subsequent communal digitization.

The Disconnected Community

A Brief History of Neighborhood Delineation

Defining a neighborhood can be difficult, especially in the United States where many "Anglo-American cities lack firm official borders, assuming vastly different shapes depending on the person or institution dividing up space" (Payne, 2017, para. 2). Counties or city limits rarely change, but neighborhoods are fluid, social constructions, often named simply as part of a community rebranding effort or the name of a housing development. The idea of a more delineated neighborhood harkens back to the eighteenth century in France. Parisian arrondissements were first defined in 1795, "the same year that the French Revolutionary government adopted the meter as unit of measure, in the same spirit of standardization and rationalism" (Payne, 2017, para. 3, and "The History of the Metric System," 2014). Later on, Napoleon III and Baron Haussman expanded the defined arrondissements from 12 to 20, birthing the first "cadastral map of Parisian property ownership in 1853" (Payne, para. 3). While

arrondissements are probably too big to be defined as a “neighborhood” today—each could include over 100,000 people in today’s Paris—the principle of delineation is helpful for understanding the initial steps toward compartmentalizing community areas and drawing more rigid boundaries around them.

As history moved forward, so did the ideology of neighborhood delineation. The Chicago School of urban sociology took Haussmann’s Parisian theories a step further by mapping 77 “community areas” in Chicago; researchers combined Haussmann’s “love of abstract order with an ethnographic eye for the particular” (Payne, para. 3). The idea behind the community mapping was to represent neighborhoods as more than just their census tract delineation (Bulmer, 1981). Soon after, planners began to promote neighborhoods that focused around a school and encouraged hyperlocal social interaction (Payne).

Neighborhood Delineation Today

While mapping software has been available for some time, today’s neighborhood delineation has rapidly advanced since the advent of the iPhone in 2007 and the subsequent location-based applications and services (Payne, 2017). Neighborhoods are now mapped by a variety of real estate websites and online services, sometimes even offering the user a chance to make their own map. Even local businesses can be deeply affected by location-based services due to their search engine optimization (or lack thereof); as Mark Graham et al. pointed out, “‘a restaurant omitted from a map can cease to be a restaurant if nobody finds it’” (as cited in Payne, 2017, para. 2).

Geospatial software developers choose to delineate neighborhoods as polygons with distinct boundaries around “homogenous areas” (Payne, 2017, para. 5). Payne (2017) discusses how Zillow—a real estate website with millions of users—has “wall-to-wall” coverage of the City of Seattle; almost every parcel is assigned a neighborhood (Payne, 2017, para. 5). Nextdoor similarly follows this pattern of delineating neighborhoods that cover an entire city, providing a certain level of “legibility” for the user (Payne, para. 6).

Digital Neighborhoods and Nextdoor

Nirav Tolia founded Nextdoor in 2010, which is now known by many as “the Facebook for your neighborhood” (Payne, 2017, para. 9). In order to sign up for Nextdoor, a resident of a particular physical location must first input and verify their address through a code sent in the mail or a billing address. Once a user is verified, Nextdoor will complete “a literal geocoding of subjects that runs against the techno-libertarian tendency to anonymous, deterritorialized identity on much of the Web” (Payne, 2017, para. 10). Posts can be seen in the user’s neighborhood and some of the local, surrounding neighborhoods, and city officials can post in the app to alert communities of hyperlocal issues or a city-wide announcement. If a user wants to create a new neighborhood, they must verify their address and then convince ten of their neighbors to sign up within 21 days. The creator of the neighborhood then becomes the “Lead,” “with greater powers to moderate discussion, adjust neighborhood boundaries, block membership, and promote other members to Lead, all on a strictly volunteer basis” (Payne, 2017, para. 11).

Incredible connectedness occurs as a result of the digitization of the neighborhood: residents now have access to their neighbors in a way they never had before. However, paradoxically, some studies show that instead of increasing the depth of community, social media may degrade the community within a neighborhood. Pittman & Reich (2016) discuss their research on social media and the young adult generation. Though individuals are clearly connected through the system of Nextdoor, Pittman and Reich provide evidence for their feelings of *disconnectedness,* and even increased loneliness:

> "Social media use continues to grow and is especially prevalent among young adults. It is surprising then that, in spite of this enhanced interconnectivity, young adults may be lonelier than other age groups, and that the current generation may be the loneliest ever. We propose that only image-based platforms (e.g., Instagram, Snapchat) have the potential to ameliorate loneliness due to the enhanced intimacy they offer" (Pittman & Reich, 2016)

Similar to the evidence for the researchers' claims of a disconnected community as a result of social networking, researchers also posit a more *divided* community as a result of social media. The following section details the racial and socioeconomic tensions that surface within the realm of digitization.

The Divided Community

Socioeconomic and Racial Tensions on Nextdoor

The type of hyper-delineation digitization offers does benefit the user in terms of being able to easily locate and navigate through a map of the city, but Payne (2017) posits that there are other problems that arise as a result:

> Popular local social network Nextdoor consists of an archipelago of self-organized, private 'neighborhoods' closed to outsiders, some confined to the size of individual condominium buildings in gentrifying neighborhoods. This downscaling of community to only the most immediate neighbors has contributed to tensions around racial profiling and economic inequality in areas where large proportions of residents use these services, particularly the San Francisco Bay Area and Seattle (Payne, 2017, para. 1).

Payne's (2017) fears were seemingly confirmed in a variety of instances, including the time San Francisco elites created Nextdoor neighborhoods within gentrified neighborhoods, furthering century-old disparities of race and wealth. Payne worries that Nextdoor could amplify the existing issues of racial or socioeconomic prejudice, because Nextdoor "imposes a restrictive definition of 'neighbor,' one that changes in scale depending on socioeconomic status… only the residents nearest to you become part of your community, and outsiders are considered untrustworthy or ignored" (Payne, para. 4).

The way people even understand the term "neighborhood" can be extremely racially charged, which has an impact on the way communities are formed digitally.

Jackelyn Hwang (2015), for example, interviewed residents of a Philadelphia neighborhood undergoing gentrification. When asked about their neighborhood, white respondents referred to “smaller spatial units with unconventional boundaries and names to exclude areas they perceived as high crime and lower status” while minority residents of varying socioeconomic status “defined their neighborhood as a large and inclusive spatial area, using a single name and conventional boundaries” (Hwang, para. 1).

The difference of experience on Nextdoor for people of color is no better understood through the racial profiling evidenced on the app. One Oakland Nextdoor posting from Oakland read as follows: “‘*One African-American man claiming to be my neighbor just rang my doorbell. He wanted to know if I had a chain to move a car. He did NOT look nor sound like any neighbor I know’”* (as cited in Payne, 2017, para. 5). The Oakland posting was a microcosm of a common phenomenon in many online Nextdoor communities; eventually, outbreaks of racial prejudice cause activist groups to form and Nextdoor to respond. To limit racial profiling on the app, Nextdoor developers included a more intensive JavaScript code that require residents to report on more than just a person’s race when reporting a crime incident. For example, when posting about a suspicious person, the user must include information about “at least two articles of clothing or other identifiers” other than race in order to post to the site (Payne, para. 6).

Despite these instances, some argue that racial profiling is inevitable. Racism and bigotry, as one researcher posits, are not the fault of social media, although social media may amplify them:

> For too long, these companies took little or no responsibility, claiming they were just platforms on which behavior — both bad and good — unfolded. Twitter failed to get ahead of its abuse problem. Airbnb has yet to figure out how to stop hosts definitively from refusing African-American guests. Last week, Facebook began to stop some advertisers from keeping certain races from seeing their ads — but outside ads for housing, employment, or credit, that practice is still fair game. These companies are learning the hard way that there is no silver bullet for eliminating racial bias, and no quick web fix for calling out bad behavior (Hempel, 2017).

SUMMARY

In sum, little research has been done on the Nextdoor app or similar apps specifically, but we can draw insights from related research. Due to the systems thinking research offered by Stroh (2015) and many others, we can understand the inherent connectedness we have to other people, which is visualized and made tangible through digital social networks. Paradoxically, research shows evidence that those social media applications have greatly contributed to the *disconnection* humans feel from society; the tools meant for greater connection can even be used to amplify racial and socioeconomic tension in communities (Payne 2017 and Hempel 2017). The following chapter details the methods I use to explore the realities of a simultaneously connected, disconnected, and divided community through studying the St. John's Nextdoor neighborhood.

CHAPTER 3: METHODOLOGY

My methods to better understand communication on the Nextdoor application included analysis of the demographics of the St. John's neighborhood, analysis of the conversation occurring on the Nextdoor news feed, and analysis of the answers to a survey taken by neighborhood residents. All methods and the questions on the survey were submitted to the Institutional Review Board at the University of Texas at Austin.

Analysis of Demographics in St. John's

The demographics of the geographic neighborhood and the online neighborhood were recorded so the two could be compared. To analyze the current demographics of the neighborhood, racial and ethnic data were taken from the 2013-2017 American Community Survey records for Census Tract 18.12. The boundaries for Census Tract 18.12 match up almost exactly with the boundaries for the online neighborhood, making it easy to compare.

To obtain racial demographics of the online neighborhood, two methods were used. First, residents in the online neighborhood were asked to complete a survey as part of the qualitative analysis in the research, and the survey included one question regarding the respondent's race and ethnicity. Second, the last names of all St. John's residents listed on the Nextdoor site were analyzed using surname data from the 2010 Decennial Census. The last names of the residents were compared to the list of the most common surnames from the 2010 Census in the United States and their accompanying racial distribution. For the most accurate calculation of the racial

distribution in the online community, I used probabilistic matching between the Nextdoor last names and the census surname database.

Observational Analysis

Each post on the Nextdoor application had to meet several criteria to be considered as a piece of data to be coded and analyzed as part of the research. First, the conversation had to be listed on the St. John's newsfeed specifically, instead of just on the home feed, which includes posts from other surrounding neighborhoods. Second, in an effort to analyze only genuine conversations between residents in the neighborhood, no sponsored posts were included. Finally, posts about a neighbor joining the neighborhood – which is an automated response by the Nextdoor application upon a user's decision to sign up for Nextdoor – were also excluded, due to the automated nature of the post. I bookmarked the 50 most recent posts that met all the criteria above to ensure a snapshot of recent data and to exclude redundancy in the posts chosen. Posts were bookmarked in February 2019. Each post can include dozens of "thanks"—the equivalent of a Facebook like—and comments, both which were analyzed as a measure of the post's engagement.

After choosing the posts, each post was coded using Grounded Theory, a method that allows the researcher to begin analyzing data and search for themes and patterns in the data ("What is Grounded Theory?", n.d.). The preliminary analysis began with coding each post and comment as "negative" or "non-negative" and coding for basic themes: *recommendations, for sale and free, documents, crime and safety, and lost and found.* The original themes were based on the categories Nextdoor offers users

when posting to the site, but the code assigned to posts were based on their content, not the label given to the post by the Nextdoor user. *Table 1* shows how each post was coded according to its content and then categorized by a theme; if the answer was yes to the question underneath the category, it was categorized as such.

Table 1: Preliminary Themes and Criteria for Categorization

For Sale and Free	Community Events	Lost and Found	Crime and Safety	Documents
Is something being sold or given away?	Is there an event occurring that neighbors are inviting other neighbors to participate in?	Is there an item or pet that is missing or has been found?	Is there illegal or unsafe activity being described in this post?	Are there important documents attached?

As the analysis continued, a theory was developed to offer an explanation for the themes that emerged and those that were most salient. A post was determined as negative or non-negative based on two criteria: 1) does the post degrade the neighborhood; and 2) does the post belittle any member of the community? If the answer was yes to either question, the post was classified as negative.

Qualitative Analysis

In order to gain more rich qualitative data, I created a survey. The following questions were listed on the survey: 1) Would you say you know your neighbors well; 2)

Have you ever voiced an opinion or concern about your neighborhood on the Nextdoor app; 3) Do you feel that your opinions and concerns are heard by city officials; 4) Do you feel the conversations on “Nextdoor” are more positive or negative; 5) What is the primary reason you use “Nextdoor”; 6) Do you feel “Nextdoor” is a good tool to express opinions and concerns about your neighborhood; and 7) What is your race/ethnicity? These questions were designed to prompt residents to discuss their experiences on the app and within their neighborhood.

A Google form survey was created and posted on to the St. John’s neighborhood feed to recruit residents to take the survey. In order to increase the number of residents who took the survey, several of them were messaged individually, including the lead or “founder” of the online St. John’s neighborhood. The answers were gathered into a spreadsheet.

I posted the survey information and Google form link publicly in the Nextdoor St. John’s community multiple times, and I messaged several active Nextdoor members individually in an effort to prompt more responses. All posts and messages were sent within a one-month period, and six responses were returned. No responses were rejected; all of them were complete. The more qualitative results of the survey, as well as the demographic and observational analysis, are discussed in the following chapter.

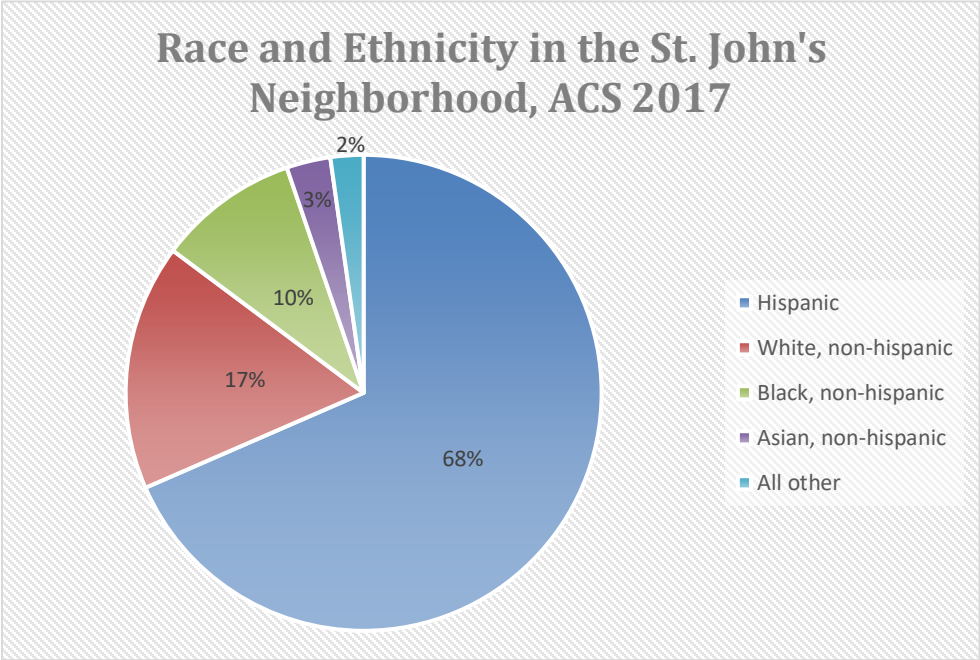
CHAPTER 4: RESULTS

The results of the demographic, observational, and qualitative analysis are explained below. The demographic analysis provides evidence for a stark difference in the online community and the geographic community, and the observational analysis provides rich insight into the most salient themes discussed in the St. John's online community. Finally, the survey results show more insight into the way respondents use the Nextdoor app.

Results of Demographic Analysis in St. John's

The demographics of the geographic neighborhood were sourced from the American Community Survey of 2017 to provide the most recent data. The data shows the St. John's neighborhood to be 68 percent "Hispanic" and 17 percent "Not Hispanic or Latino: - White alone" of the 7,920 people living there. While the majority of people fall into one of the two aforementioned groups, the remaining population was classified as "Black, non-Hispanic" (10 percent), "Asian non-Hispanic" (three percent), and "All other" (two percent), as shown in *Figure 1.*

Figure 1: Race and Ethnicity in the St. John's Neighborhood

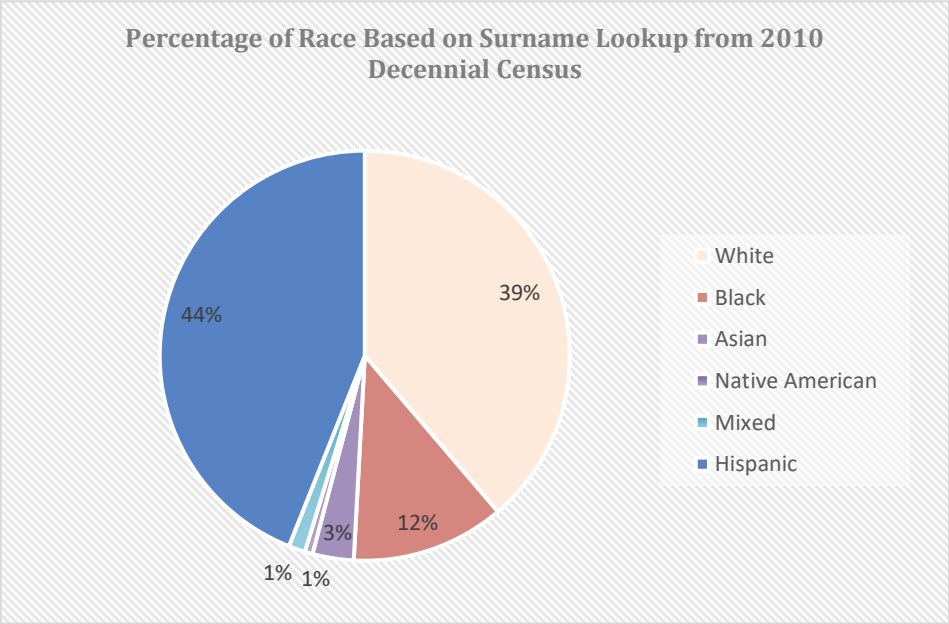


The racial/ethnic demographics of the online neighborhood were obtained by the two methods; first, residents in the online neighborhood were asked to complete a survey, which included one question regarding the resident's race and ethnicity. This survey yielded six respondents; three out of six respondents on the survey classified themselves as "White" while two of the respondents classified themselves as "Hispanic / Latino" and one respondent classified himself or herself as "Other" (St. John's Neighborhood Survey, March 2019). While the data obtained from this qualitative-focused survey was helpful, I did not get enough responses from the survey to have a statistically valid sample.

For the second method, all St. John's residents' last names listed on the Nextdoor neighborhood were analyzed using surname data from the 2010 Decennial Census. By putting the last names of the residents into a spreadsheet, I used the "VLOOKUP" function on Excel to run the names through the database. Of the 410

names listed on Nextdoor, 175 names were matched on the surname database from the Census, which is a statistically significant sample size with a 5.7 percent margin of error and a 95 percent confidence level. Once the name was matched in the database, the race with the highest percentages of the corresponding last name was assigned to the name. *Figure 2* shows the highest percentage of corresponding races with surnames found in the database.

Figure 2: Race in the Online St. John's Neighborhood

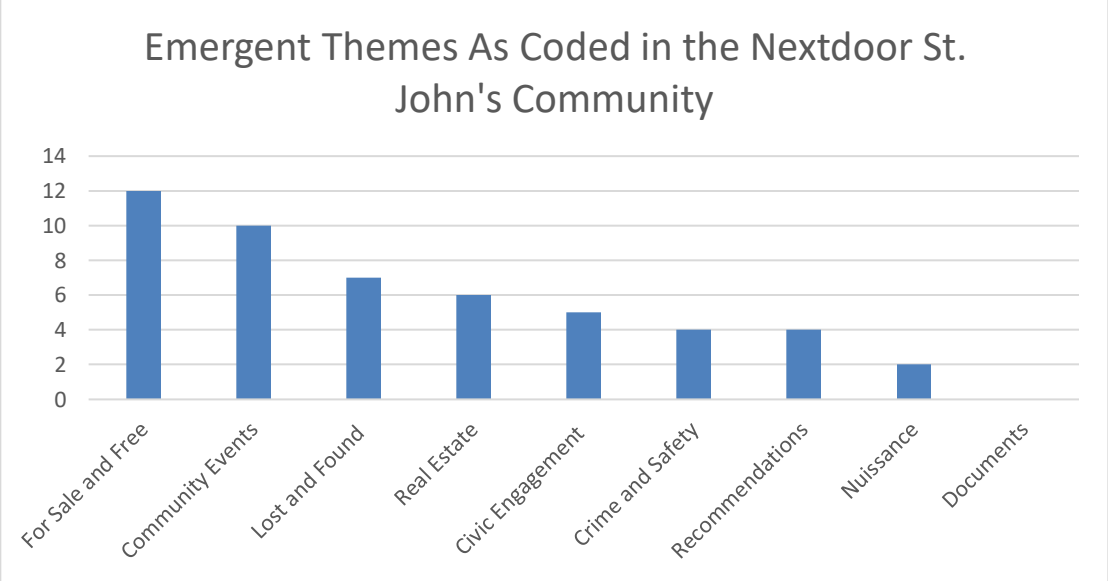


According to the surname lookup in the St. John's Nextdoor neighborhood, 49 percent of the online residents were White and 46 percent of them were Hispanic. Just two percent were classified as black or African-American, and three percent as Asian.

Results of Online Observational Analysis

After bookmarking 50 Nextdoor posts in the St. John's Nextdoor community, I began by coding each post by its main theme: *for sale and free, lost and found, documents, crime and safety, recommendations,* and *community events.* While Nextdoor offers the aforementioned categories for residents to use, the posts were coded not by their Nextdoor categories but by their content using basic yes or no questions described in the methodology chapter. The most salient theme by far was *for sale and free*, followed by *community events* and *lost and found*. All themes are listed in order of saliency and discussed in this chapter. In addition, several new themes emerged as a result of the research: *real estate, nuisance,* and *civic engagement.* The new themes were listed in line with the primary themes in order of saliency as well. All themes in order of their frequency can be seen in *Figure 3.*

Figure 3: Themes as Coded in the Nextdoor St. John's Community in Order of Frequency



FOR SALE AND FREE

The *For sale and free* category of posts was very frequent, occurring six more times than any other theme—12 times total out of all 50 posts. Examples of this theme in the data include Neighbor G's offering her husband's holiday decoration services:

> "Hi neighbors just wanted to share that my husband will be installing Christmas Lights again this year. He's done it for the past ten years… He will drive anywhere around town and out skirts he also does power-washing, window cleaning, painting etc.. If anyone would like a free estimate feel free to call or text… Have a great day" (Neighbor G, *St. John's Nextdoor Neighborhood Feed*).

While many of the posts coded as *For Sale and Free* were about free Halloween candy or small businesses run by neighbors—as was the case with Neighbor G—many others were about subletting a room for rent. For this reason, *Real Estate* was classified below as a separate, emergent theme and is discussed individually below.

COMMUNITY EVENTS

Community events were the second most common theme with ten posts out of 50. Most *community event* posts had to with volunteering or participating in volunteering opportunities. For example, Neighbor L invited neighbors to give away "gently used infant, children, teen or young adult clothing, shoes or coats and baby gear such as Pack-N-Plays, [and] high chairs (but no cribs, car seats or toys please)" for the "Hope

Fest" event (Neighbor L, *St. John's Nextdoor Neighborhood Feed*). Neighbor M pleaded with neighbors to participate in the city-wide "My Park Day" event: "We'll be cleaning the creek and the park and we need your help. Volunteer registration is open and I'd love for you to join me" (Neighbor M, *St. John's Nextdoor Neighborhood Feed*). Perhaps the most striking form of community events posts were a string related to the passing of one community member:

> Two months ago my uncle passed away he was found unresponsive on E. St. Johns… Unfortunately, he became very ill and was diagnosed with cancer. He passed away this Sunday… It's really hard for my father to have lost two brothers in less then two months as you know we weren't expecting these tragedies. Please if you find it in your heart anything is greatly appreciated… We'll be selling food today at 6PM to raise funds for the funeral (Neighbor N, CITE POST).

Some other posts coded as *community events* include one student requesting that her neighbors fill out a survey for a communication studies class, and another post inviting neighbors to the first-ever East Austin studio tour in St. John's.

LOST AND FOUND

All posts coded as *Lost and Found* were posts having to do with a lost or found animal. Typically, a post would read similar to Neighbor Q's post, "This kitty showed up at my back door trying to come in. Very friendly. Even let me pick him up. He seems

lost, like he can't navigate through the back yard. Let me know if he's your cat and I can help get you guys back together" (Neighbor Q, *St. John's Nextdoor Neighborhood Feed*). While the theme might be more aptly-named *Pets,* all of the posts met the pre-determined definition and none of the post differed.

Real Estate

While the *real estate* category could be classified under the umbrella theme of *for sale and free,* the *real estate*-themed posts were remarkably similar and would have made up over a third of all community event posts had they been classified together. Thus, an emergent theme was warranted. All *real estate* posts were neighbors advertising a room for rent or sublet. For example, *Neighbor H* was in search of a female roommate to rent out another room in her home, "to take [a] gorgeous master suite on 6-month sublet in 3-bedroom house in Northeast Austin… Rent is $900/month, unfurnished - this is a screamin' deal (well below actual rent) on a beautiful, modern home" (Neighbor H, *St. John's Nextdoor Neighborhood Feed*).

Crime and Safety

Two of the *crime and safety* posts were coded as such because they had to with gunshots. For example, Neighbor R posted, "I just heard 5-7 gun shots directly behind [my] apartments @ 11:29. did anyone else hear this? Be safe" (Neighbor R, Nextdoor post). The remaining *crime and safety* Nextdoor post had to with property theft and drug use in the St. John's area, including Neighbor K's experience at a local bus stop:

> I live [in the St. John's neighborhood] which is a high criminal activity… I witnessed various of times where these guys are at store on the corner…

> smoking and bothering kids making them feel uncomfortable like if they are want to rob them and when I see this I will pull to the side of road to make sure me and that person make eye contact to leave them alone and I see that they get away from them safe. This is so sad because it is very close to a high school where children walk back and forth from home to school and school to home… I have reported this various times to APD but of course NO RESPONSE. How can we help this situation of these children being safe? (Neighbor K, *St. John's Nextdoor Neighborhood Feed*.).

The post from Neighbor K uses negative language to describe the neighborhood and the local police department, and it was therefore marked as negative.

RECOMMENDATIONS

The recommendation posts were typically people looking for maintenance work at their home. For example, one neighbor posted, “With these recent rains, our roof has started leaking. I'm looking for recommendations for affordable but dependable roofers to diagnose our leak and patch it up” (Neighbor P, Nextdoor post). With just eight words, one post became increasingly popular in the online St. John’s community: “Anyone know where I can find some good tamales” (Neighbor P, CITE POST). The post generated 16 comments of varying recommendations, most of them in favor of tamales sold in parking lots around Austin.

CIVIC ENGAGEMENT

*Civic Engagemen*t was listed as an emergent theme from the *Community Events* theme. Some posts were about neighborhood meetings initiated by the Austin Police Department, asking neighbors to join “for a family event where you can get to know different organizations and learn about resources in the area. This event is FREE and open to the public” (*St. John's Nextdoor Neighborhood Feed*). Another post engaged neighbors to suggest new names for a high school in the area. The City of Austin posted to the St. John’s community about a project to use some vacant property to better the community:

> The City of Austin is seeking tenants for an upcoming temporary neighborhood center installation that will activate vacant city-owned property. The project aims to advance citywide goals for complete communities, economic opportunity, and equity by providing six affordable commercial spaces to small, local businesses in East Austin. These spaces will be created from retrofitted shipping containers, which will be leased out to enthusiastic and creative entrepreneurs willing to test out new ideas or expand their business idea for a period of six months from January 2019 to mid-July 2019… Create a space where the local community can hang out and enjoy. The City is seeking participation for the ongoing programming of the space (City of Austin, *St. John's Nextdoor Neighborhood Feed*.).

NUISANCE

Nuisance was listed as an emergent theme because it did not fall into any other category. While close to the *Crime and Safety* theme, oftentimes the *nuisance* posts were simply about complaints that did not necessarily have to do with illegal or unsafe activity. For example, Neighbor I posted about fireworks on Christmas Eve:

> Is this a new thing - Fireworks on Christmas Eve? I, and all my neighbors, their dogs, and their kids are now wide awake after a twenty-minute show on Atkinson. Woo-hoo, yay! celebrate! but it is after midnight, and y'all might blind Rudolph with that stuff. Maybe that's why my neighbor's three-year-old is now crying. (Neighbor I, *St. John's Nextdoor Neighborhood Feed*.).

As shown in Neighbor I's post, he or she is clearly irritated with the person or persons using fireworks, and thus, this post was counted as negative. Another example would be a post from Neighbor J about an effort to get the newspaper delivered in his or her driveway, "which is what their 'delivery standards' call for, but instead they keep dropping it on the opposite side of my house. Calling subscriber services connects to out-of-town call centers and nothing happens. A First World Problem, but irritating nonetheless" (Neighbor I, *St. John's Nextdoor Neighborhood Feed*.).

DOCUMENTS

There were no posts coded as having anything to do with documents.

Results of Observational Analysis: Negativity vs Non-Negativity

The overwhelming majority of posts on the Nextdoor St. John's community were classified as non-negative, as shown in *Figure 4.* The posts categorized as negative were *crime and safety* and *nuisance,* as shown in *Figure 5.*

Figure 4: Overall Negativity-Non-Negativity in St. John's Nextdoor Posts

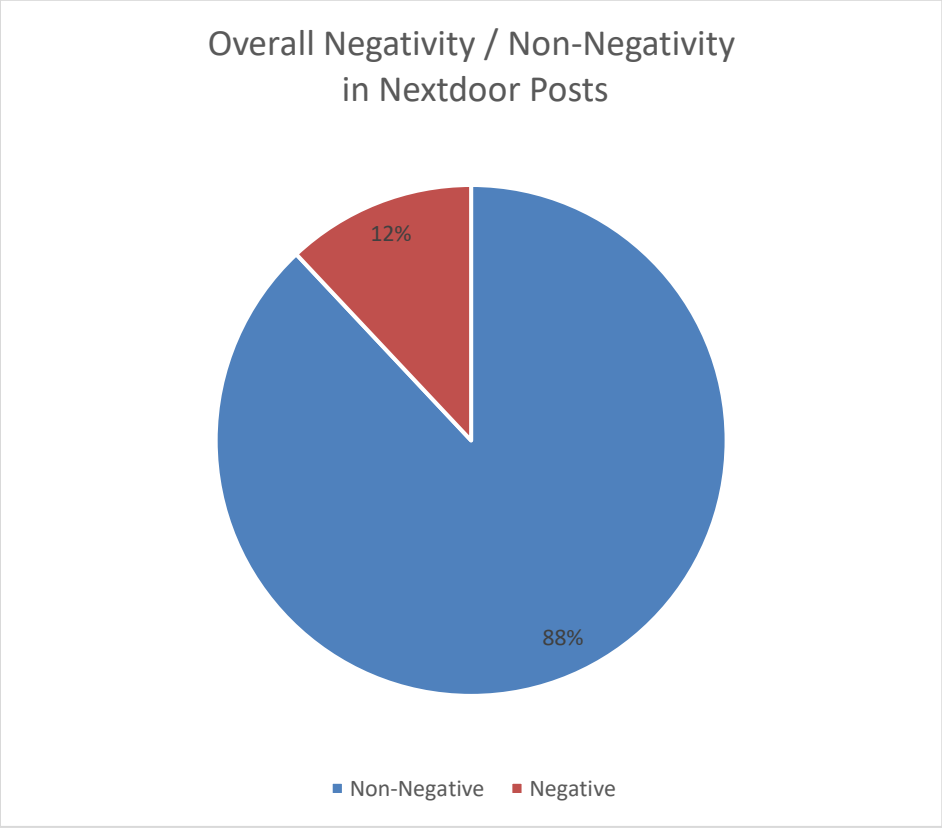
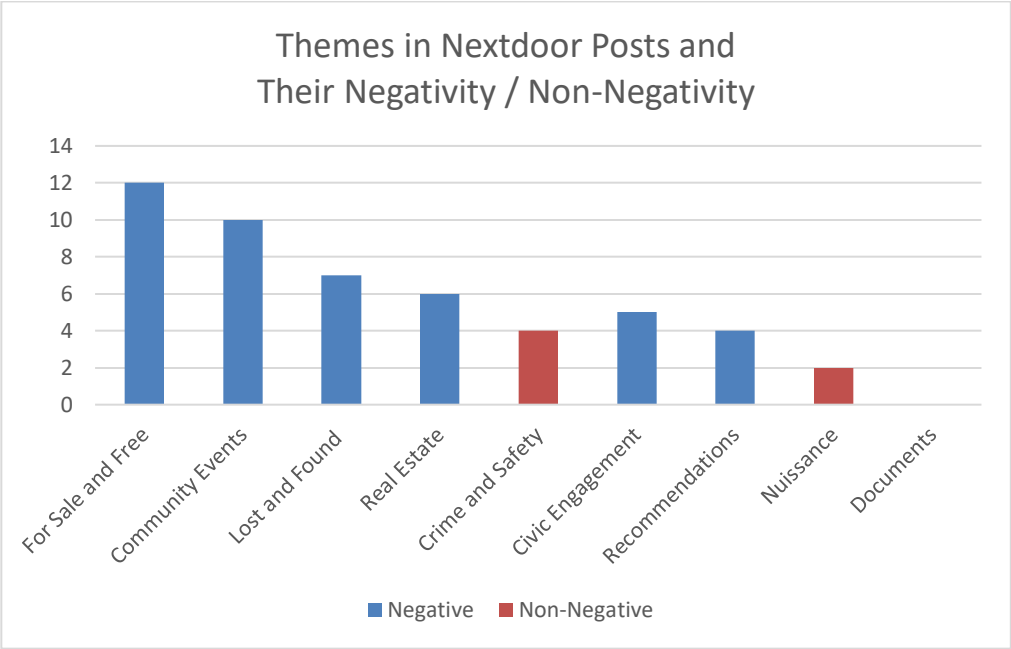


Figure 5: Negativity / Non-Negativity in St. John's Nextdoor Posts Classified by Theme



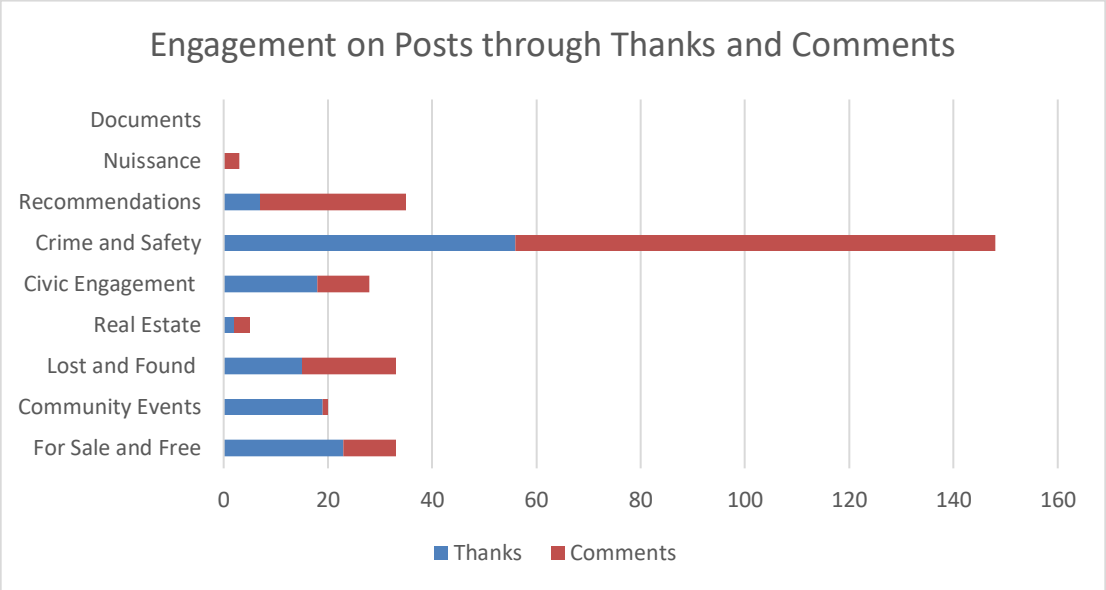
The five posts that were classified as negative were all classified as *crime and safety* or *nuisance*–posts regarding gunshots heard in the neighborhood, drug use at a bus stop near a high school, a doormat thief, fireworks late at night, and an ill-delivered newspaper.

ENGAGEMENT ON NEXTDOOR POSTS

After a post has been posted on the Nextdoor online community, residents have the opportunity to respond. To do so, a resident can "Thank" the post—which is the equivalent of a Facebook "Like"—or the resident can leave a comment on the post. The theme with the most engagement by far was Crime and Safety, which had 56 "Thanks"

and 92 comments. The next highest categories were Recommendations, which had 7 thanks and 28 comments. For Sale and Free and Lost and Found tied for third place with both having 33 total engagements. *Figure 6* shows the engagement on posts and their respective themes.

Figure 6: Engagement on Nextdoor Posts Through Thanks and Comments as Categorized by Theme



NEGATIVE AND NON-NEGATIVE COMMENTS

To further analyze the negative and non-negative perspective of people in the Nextdoor St. John's community, the comments in response to all posts were analyzed as well. Out of all 50 posts analyzed, only five posts were categorized as having any negative comments: three *crime and safety* posts, one *nuisance* post, and one *civic engagement* post.

For example, one *crime*-themed post called out an unidentified woman caught on a security camera stealing doormats. The post prompted a plethora of responses, ranging from “Wow...that is sooooooooo stupid” to a couple of neighbors hastening to print their own doormats with an ironic photo of the woman (*St. John's Nextdoor Neighborhood Feed*.). Other responses included, “What an a-hole” and “She is very brave, and her little dog too” (*St. John's Nextdoor Neighborhood Feed*.).

Perhaps the most striking comments section was in response to Neighbor K’s concern about drug users near a bus stop high school students use to get to school. Several comments positively encouraged Neighbor K to report any criminal activity to the police or bring the issue to a neighborhood meeting; however, many of the comments were less encouraging:

Table 2: Nextdoor Comments in Response to Post Regarding Drug Use in St. John's Area

Comments in Response to Drug Use Post (CITE NEXTDOOR POST)
"It's been like that lol, you MAKE the change"
"St. John's area has been one of the worst places in the neighborhood since I came here 26 years ago… I am not sure if there is a solution. Good luck!"
"So, you want to kick them off/trespass them from a public easement? Good luck with that."
"We should just make being poor a crime… We could make children illegal. That way they wouldn't have to look at poor people."
"It's east Austin not Afghanistan…"

The post had a total of 62 comments, 23 of which were classified as negative because of their degradation of the neighborhood as a whole—i.e., expressions of a hopeless attitude or that there is no solution to the problem—or the degradation or belittlement of a person.

One non-negatively classified *civic engagement* post returned with some negative comments. The post was initiated by an Austin Police Officer who invited neighbors of the St. John's community to a "Community Stakeholders Meeting" at an elementary school (*St. John's Nextdoor Neighborhood Feed*). The post ended with, "This is your neighborhood and we need your support to effectively address your concerns" (*St. John's Nextdoor Neighborhood Feed*.). However, the post was viewed as last-minute by users and incited a few short comments. One person responded, "More police than neighbors at this. Come on neighbors you are going to complain if they don't show up. It takes a village" (*St. John's Nextdoor Neighborhood Feed*). Another quipped, "More than 3 hours notice would have been great" (*St. John's Nextdoor Neighborhood Feed*).

Overall, only five posts out of 50 incited negative commentary. However, it should be noted that 72 percent of all comments—negative and non-negative—were comments by people outside of the St. John's neighborhood. When posting to the app, a Nextdoor user has the option to keep the post hidden from the surrounding neighborhoods or to allow the post to be visible in both the user's neighborhood and the handful of surrounding neighborhoods. Thus, it appears the majority—if not all—the posts from St. John's residents were made visible to surrounding online communities. More research should be done to determine if the disproportionate amount of response from people outside the St. John's community is due to a greater amount of online participation in the outside neighborhoods, suggesting yet another possible disparity.

Results of Qualitative Analysis

After being posted multiple times in the Nextdoor St. John's community, the survey returned six responses to the following questions: 1) Would you say you know your neighbors well; 2) Have you ever voiced an opinion or concern about your neighborhood on the Nextdoor app?; 3) Do you feel that your opinions and concerns are heard by city officials?; 4) Do you feel the conversations on Nextdoor are more positive or negative? 5) What is the primary reason you use Nextdoor? 6) Do you feel "Nextdoor" is a good tool to express opinions and concerns about your neighborhood? and 7) What is your race and ethnicity? These questions were designed to prompt residents to discuss their experiences on the app and within their neighborhood.

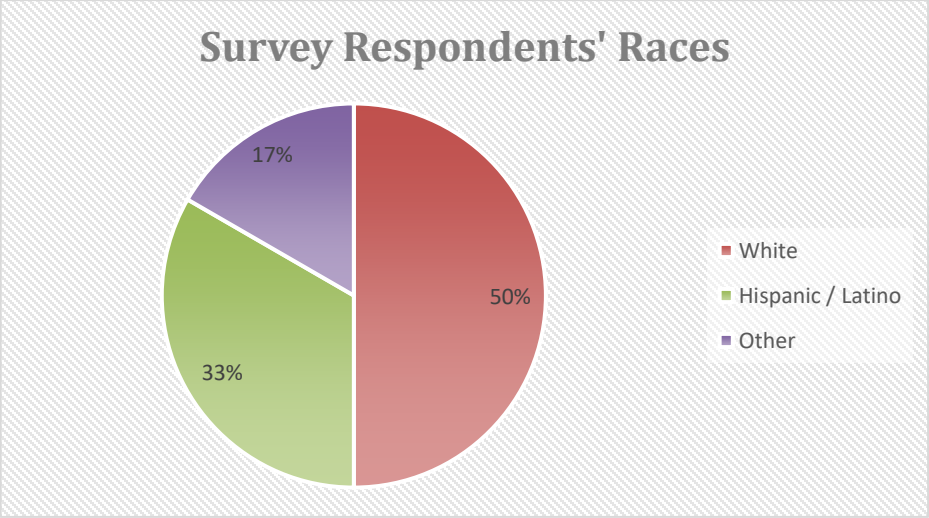
In response to the first question, "Would you say you know your neighbors well", five out of six respondents said no. Similarly, five out of six respondents said they had never voiced an opinion or concern about their neighborhood using Nextdoor and five out of six said they did not feel heard by City officials.

When asked whether the posts were mostly positive or negative on Nextdoor, the respondents had varying answers. Two respondents said the conversations were "mostly positive," two said "mostly negative", and the other two had mixed answers. Aligning with the results of the observational analysis, Neighbor F responded, "Positive conversations are started; I do see a lot of negative comments though" (Neighbor F, St. John's Neighborhood Survey, March 2019). Neighbor D responded, "A mix of both" (Neighbor D, St. John's Neighborhood Survey, March 2019).

While only six people responded to the survey—not enough to produce a statistically significant finding—I wanted to show data representing the racial and ethnic

classifications of people choosing to take the survey. Exactly half of the respondents participating in the survey classified themselves as white, non-Hispanic, and two of the respondents classified themselves as Hispanic. One respondent classified himself or herself as "Other." *Figure 9* shows the distribution of racial and ethnic classifications amongst the survey respondents.

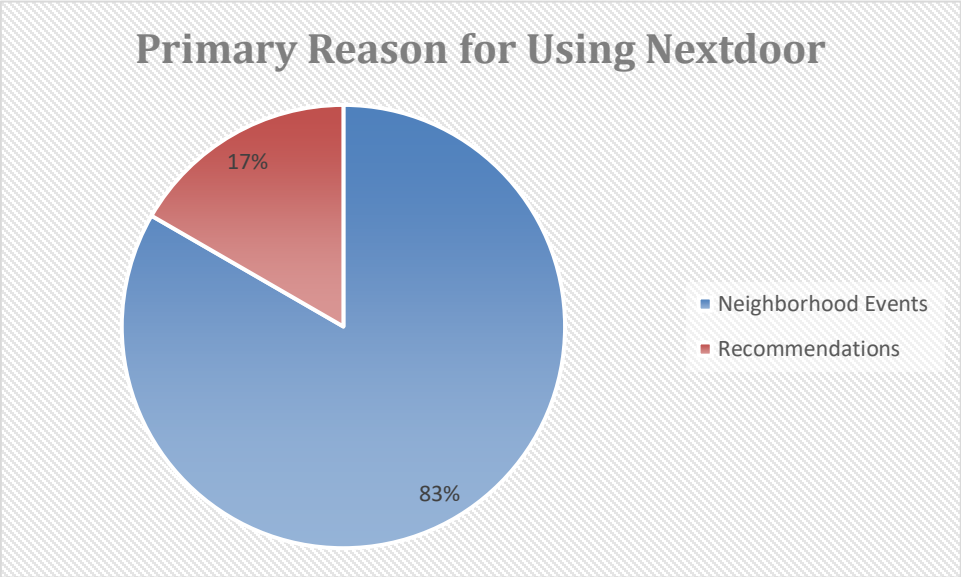
Figure 7: Racial and Ethnic Classification of St. John's Nextdoor Survey



Respondents were also asked about the primary reason they use Nextdoor. With some variations, the majority of the respondents said they use Nextdoor to keep up with community events in the surrounding area. However, different respondents seemed to define "neighborhood events" in different ways. For instance, *Neighbor B* responded, "Understanding neighborhood events (crime)" and *Neighbor A* responded, I'm trying to get to know my neighborhood better, and to know what's going on here and in neighborhoods surrounding it" (Neighbor A and B, St. John's Neighborhood Survey, March 2019). *Neighbor A* may or may not have implied "crime" as a part of their reason for participating in the online community, while *Neighbor B* explicitly stated crime as the

reason he or she is on the app. One person specified that they were on Nextdoor to keep up with “time sensitive info about my neighborhood” and to use the app “as a community forum” (Neighbor F, St. John’s Neighborhood Survey, March 2019). One person said they were using the app to “get recommendations” (Neighbor C, St. John’s Neighborhood Survey, March 2019). *Figure 10* shows the respondents’ answers regarding why they are on Nextdoor.

Figure 8: St. John’s Respondents’ Answers to Why They Use Nextdoor



Similar to the responses about whether conversation on Nextdoor is more positive or negative, the respondents had mixed answers about whether or not Nextdoor is a good tool to express opinions and concerns about St. John’s neighborhood issues. Two respondents said yes, and two respondents said no. Neighbor A said, “It probably is a good tool for that, that’s not how I am myself using it

though” and Neighbor E said, “It’s turning into more of a social media message board than a neighborly message board” (Neighbor A and E, St. John’s Neighborhood Survey, March 2019).

Overall, responses to the St. John’s neighborhood survey were fairly mixed aside from the answers to the first three questions. Most respondents agreed they do not know their neighbors well, they have not voiced an opinion on the Nextdoor app, and they do not feel heard by local officials.

CHAPTER 5: DISCUSSION

The research conducted was beneficial for better understanding the disparity between geographic racial composition and online racial composition, as well as what topics people are communicating about the most in the St. John's neighborhood on Nextdoor. The *for sale and free* theme was found to be overwhelmingly salient, and the findings regarding the level of positivity of conversations in the St. John's online community revealed that the majority of the posts were non-negative in nature. Additionally, as a result of the survey, further evidence was found in regards to the racial disparities between geographic and online community members, as well as the limitations social media has to engender true relationship between neighbors.

Demographic Analysis: Racial Disparities

When comparing the data from both the geographic and online demographic analysis, there is a clear distinction. The percentage of white residents who participate online appears to be a much higher percentage than the percentage of white residents in the area, as shown in the side-by-side analysis of *Figure 9* and *10*. Additionally, though only six respondents participated in the survey, half of the survey respondents identified themselves as White, non-Hispanic. It appears the more digital the community gets, the more racially skewed, and perhaps even more economically skewed—given the data about the digital divide (Rogers, 2001).

Figure 9: Geographic Demographics

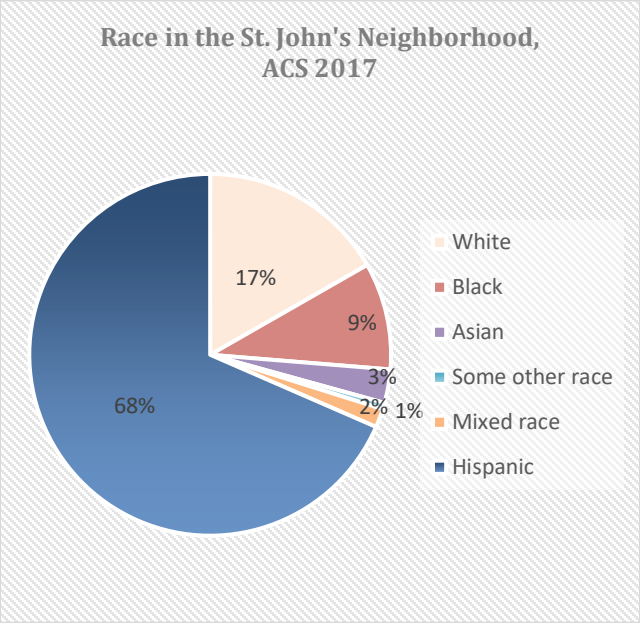
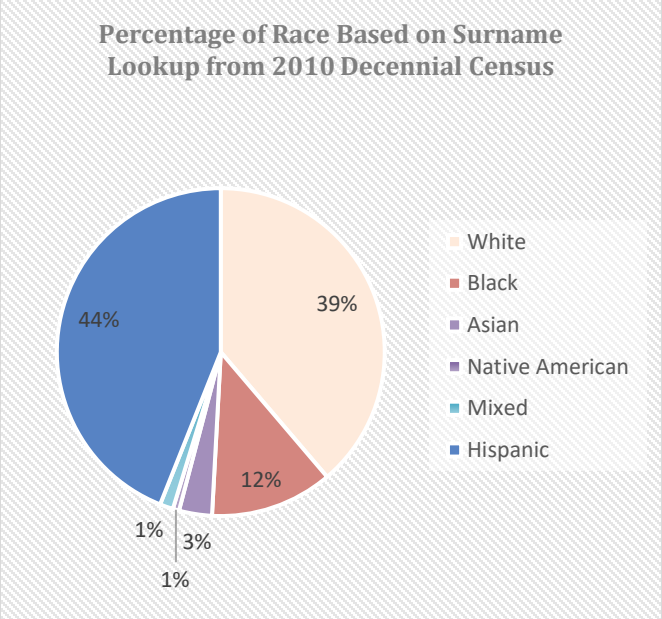


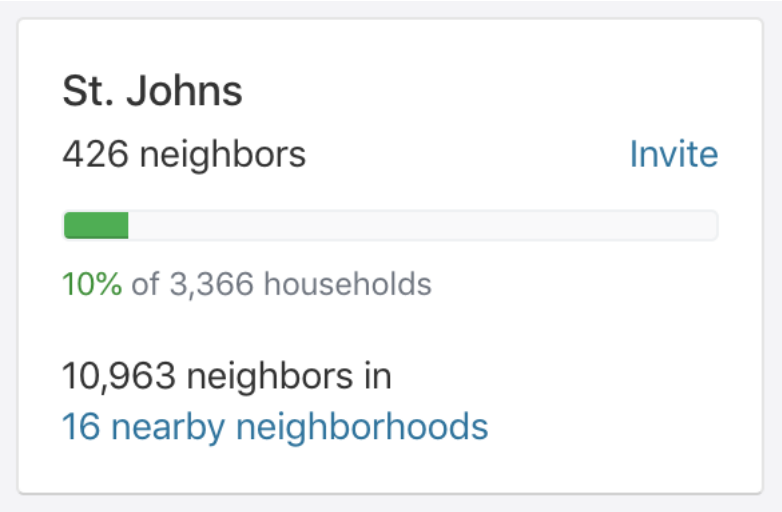
Figure 10: Online Demographics



However, there were limitations to the demographic analysis, like the fact that not every resident's last name was common enough to be found on the surname list from the Census Data, leaving 235 residents without a classified racial category. The results could be skewed if certain surnames associated with certain racial/ethnic groups are disproportionately likely to be absent from the database. However, if we ignore this possibility, the sample size given – 175 residents out of 410 – is still statistically significant with a 5.7 percent margin of error and a 95 percent confidence level. This sample of the neighbors on Nextdoor shows a disproportionate percentage of white residents online when compared to the geographic percentages. It is also worth noting that the number of neighbors on the Nextdoor app make up just ten percent of the St.

John's geographic neighborhood, according to data populated by the site, as shown in *Figure 11.*

Figure 11: Percentage of Households in St. John's on Nextdoor



Regardless of race, the app's data shows 90 percent of the residents are not participating on the Nextdoor app, showing a pre-existing disparity as well. The 2017 American Community Survey data suggests a slightly lower number of households in the census tract, with just 2,984 households; however, even that number of households leaves the overwhelming majority of households out of the Nextdoor community. This leads to questions for future research, like "how [are] geographically-based social networking services [improving] the user experience" for people of color?

Knowing Your Neighbor: Frequent Categories and a Lack of Self-Disclosure

The emergent themes showed that *for sale and free* was certainly the most frequent theme, followed by *community events* and *lost and found.* In other words,

almost a quarter of posts analyzed on the Nextdoor app had to do with selling in the *for sale and free* them. If the emergent theme of *real estate* was added onto the *for sale and free* category (as it would be in the Nextdoor app), the number of monetized posts comes to 36 percent of all posts. According to Greene et. al (Greene, K., Derlega, V. J., & Mathews, A., n.d.), self-disclosure is an important part of developing interpersonal relationships. Over a third of the posts are essentially advertising, reflecting a lower level of self-disclosure, and subsequently, depth. While the creators of Nextdoor may have meant well when creating a space for neighbors to get to know each other, it appears much of the digital space is being used for economic gains instead of relational gains.

However, the second-most frequent theme was *community events*, which seemed to reflect the best of the Nextdoor St. John's community. Many of the posts were "feel-good" posts about volunteering or helping a student complete a survey. The seemingly most meaningful—and heart wrenching post—came from the *community events* theme, a post about a family member's passing in the St. John's community. This post had a higher level of self-disclosure, and thus a higher level of depth, reflecting the potential that the Nextdoor app has to impact a community not just monetarily, but also relationally.

Some of the less frequent but no less important themes included *lost and found* and *crime and safety.* The *lost and found* posts were all about animals, and all posts were non-negative. The *crime and safety* posts were all coded as negative, and they seemed to gain the most traction for negative comments as well.

While the bulk of the posts were non-negative, systems theory suggests that negative posts—and comments—can make a large dent in neighborhood residents' morale (Stroh, 2015). *Negative* comments seemed to be common threads on negative posts—all of the posts with negative comments were classified as negative posts themselves aside from the one ill-timed *civic engagement* post. Also, people from other neighborhoods were allowed to post on many of the posts analyzed, so the contributions toward negative comments were not necessarily even people from the St. John's community but a surrounding one.

Qualitative Analysis: A Disparity of Use and Desire for Use

The qualitative analysis showed again the disconnect between what the app is being used for and what the respondents *want* to use the app for. The majority of the respondents wanted to keep up with neighborhood events, but over a third of the posts are monetary in nature (either *for sale and free* or *real estate* themed). Another disparity exists between the way respondents feel about their ability to express opinions on the app. Although some respondents say they feel Nextdoor is an appropriate place to express civic concerns, they do not express their concerns. Only one respondent said they had used Nextdoor to voice a concern.

CHAPTER 6: CONCLUSIONS

In sum, the Nextdoor app has considerable potential to create meaningful relationships and notify neighbors of community events for human interaction to take place. Yet, the app is often used as a space for negative commentary and monetization, and while the commerce-related activity can benefit people in the neighborhood, Nextdoor was intended as an online space for getting to know people. The emphasis on relationship with neighbors is what makes Nextdoor different from Craigslist or Zillow.

Additionally, the community on Nextdoor is by nature only accessible to some due to the digital divide (Rogers, 2001). Digital space is ideally a “public space,” but the digital space on the Nextdoor app is not being used equally by all members of the St. John’s community. In future research, planners should find ways to better include people of color in online community fora. As planners in search of ways to better engage community members, we must be aware of the strengths and weaknesses of the app and strive to create digital spaces for people to dive deep into relationships, instead of simply subletting to strangers. Based on what we know about the correlation between wealth and race in the United States, what types of economic barriers might stop people of color from using online community forums? What are ways to curate forums in order to increase self-disclosure and relationship and lessen monetization of postings?

My results confirm the finding from Allen, Ryan, Gray, McInerney, & Waters (2014) that social networking services elevate the ease with which individuals may form and create online groups and communities, but on the other hand, they can create a

source of alienation and ostracism” (para. 1). Nextdoor is the poster child for such a case of paradoxical connection, disconnection, and divide within a community.

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